

- 15 -

WE CLAIM:

1. A compact moiré effect body scanner for
generating 3-D images, the scanner including:

an elongate projection module having a light
5 source,

a first objective lens for directing a beam of
light from the source along a first central longitudinal
axis,

a first photographic grid for the beam of light and
10 mounted in a plane at right angles to the first central
axis to illuminate a body to be scanned, and

an elongate imaging module adjacent the elongate
projection module, having a second central longitudinal
axis parallel to the first central axis, the imaging
15 module incorporating

a second objective lens for receiving
reflected light from the body,

a second photograph grid for the reflected
light and mounted in a plane at right angles to the
20 second central axis, and

imaging means for recording a deformed
grating image reflected from the body and captured
beyond the second photographic grid.

25 2. The compact moiré effect body scanner
according to claim 1, in which the imaging means is a
digital camera.

400880

- 16 -

3. The compact moiré effect body scanner
according to Claim 1, in which the first and second
objective lenses have the same focal length and are
5 mounted in a common plane.

4. The compact moiré body scanner according to
Claim 1, in which nodal points of the first and second
objective lenses are separated by identical distances
10 from the respective photographic grids.

5. The compact moiré effect body scanner
according to Claim 2, in which the first and second
objective lenses have the same focal length and are
15 mounted in a common plane.

~~1. A compact moiré effect body scanner for generating~~
~~3-D images, the scanner including an elongate projection~~
~~module having a light source, a first objection lens for~~
20 ~~directing a beam of light from the source along a first~~
~~central longitudinal axis, a first photographic grid for~~
~~the beam of light and mounted in a plane at right angles~~
~~to the first central axis to allow light to illuminate a~~
~~body to be scanned, and an elongate imaging module~~
25 ~~adjacent the projection module having a second central~~
~~longitudinal axis parallel to the first central axis,~~
~~the imaging module incorporating a second objective lens~~

400880

- 17 -

~~for receiving reflected from the body, a second
photograph grid for the reflected light and mounted in a
plane at right angles to the second central axis, and an
imaging means for recording the reflected deformed
5 grating from the body captured beyond the second
photographic grid.~~

6. The compact moiré body scanner according to
Claim 2, in which nodal points of the first and second
objective lenses are separated by identical distances
10 from the respective photographic grids.

7. The compact moiré body scanner according to
Claim 3, in which nodal points of the first and second
objective lenses are separated by identical distances
15 from the respective photographic grids.

~~2. A 8. The compact moiré effect body scanner
according to claim 1, in which the imaging means is a
digital camera.~~

~~3. A compact moiré effect body scanner according to
Claim 1 or 25, in which nodal points of the first and
second objective lenses have the same focal length and
are mounted in a same common plane.~~

~~A compact moiré body scanner according to any of Claims
1 to 3, in which nodal points of the two objective~~

400880

- 18 -

~~lenses are separated by the same distance~~identical
distances from the respective photographic grids.

400880